

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number  
**WO 2005/087927 A1**

(51) International Patent Classification<sup>7</sup>: C12N 15/11, 15/63, C07K 4/10, C12N 5/04

(21) International Application Number:  
PCT/KR2004/000776

(22) International Filing Date: 2 April 2004 (02.04.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2004-0017691 16 March 2004 (16.03.2004) KR

(71) Applicant (for all designated States except US): NEX-GEN BIOTECHNOLOGIES INC. [KR/KR]; 2Fl. Yurim Bldg., 65-1, Wonchon-dong, Yuseong-gu, 305-370 Daejeon Metropolitan City (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEE, Sun [KR/KR]; 108-703 Sejing Apartment, Jeonmin-dong, Yuseong-gu, 305-390 Daejeon City (KR). YOO, Jae-Geun [KR/KR]; 112-301 Hansoop Apartment, Yongjeon-dong, Dong-gu, 300-768 Daejeon City (KR). CHANG, Suxo [KR/KR]; 25-41, Seodoon-dong, Kwonseon-gu, 441-853 Suwon-shi, Kyonggi-do (KR).

(74) Agent: SESHIN PATENT & LAW FIRM; 8th Fl., KFSB Bldg., 16-2 Yeoedo-dong, Yeongdeungpo-gu, Seoul 150-010 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

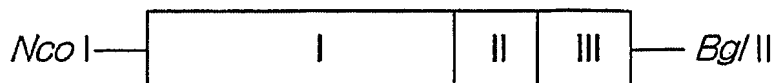
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

[Continued on next page]

(54) Title: METHOD FOR PREPARATION AND PURIFICATION OR RECOMBINANT PROTEINS

AFPV



I. AFP gene or Identically functioning gene

II. Enterokinase recognition site: Asp Asp Asp Lys  
gac gac gac aag

III. Cloning site: GCTCTAGAGGATCCATAGATCT  
Xba I Bam HI stop Bgl II

(57) Abstract: The present invention relates to a method for the production, isolation, and purification of a recombinant protein, more particularly, to a method for isolating and purifying a foreign protein stably using Anti-Freeze Protein (AFP), thereby producing the protein. The present invention provides a method for the production, isolation and purification of a foreign target protein using its recombinant protein containing AFP, and a construct, an expression vector, a transformant and a recombinant protein. The recombinant protein produced by the present invention shows the biological property and function identical to a naturally occurring protein. Particularly, the present invention is advantageous for the expression and purification of a useful protein.

WO 2005/087927 A1



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*